

What is claimed is:

1. A device manufacturing apparatus comprising:

a discharge head for discharging a liquid containing a functional material;

5 a stage for supporting a substrate on which said liquid is discharged, and which is capable of moving relative to said discharge head;

a carrier for carrying said substrate;

a detector for detecting a discharge condition of said liquid which is discharged from a discharge nozzle formed in said discharge head; and

10 a controller for executing a detection operation by said detector during a carrying operation of said substrate.

2. A device manufacturing apparatus according to claim 1, said detector comprising:

a light emitter for emitting a detection light; and

15 a receiver for receiving said detection light emitted from said light emitter;

wherein said receiver determines whether said liquid is being discharged from said discharge nozzle, based on changes in the intensity of said detection light received by said receiver due to said liquid passing through the optical path of said detection light.

20 3. A device manufacturing apparatus according to claim 2, wherein said controller performs calibration of said receiver at a predetermined timing.

4. A device manufacturing apparatus according to claim 1, further comprising

a recovery unit for performing a recovery operation of said discharge nozzle.

5. A device manufacturing apparatus according to claim 4, wherein said controller performs said recovery operation corresponding to detection results of said detector, and reexecutes detection a predetermined number of times.

5 6. A device manufacturing apparatus according to claim 1, further comprising a display device for displaying detection results of said detector, and an error based on the detection results.

7. A device manufacturing apparatus according to claim 1, wherein said detector and 10 said stage are provided at different locations.

8. A device manufacturing apparatus according to claim 1, wherein said discharge head is two or more.

15 9. A device manufacturing apparatus according to claim 1, wherein said device is at least one of; a liquid crystal element, an organic electroluminescent element, a plasma display element, an electron emission element, an optical element and a conductive film element.

20 10. A device manufacturing method comprising:
a step of discharging a liquid containing a functional material onto a substrate by means of a discharge nozzle in a discharge head;
a carrying step of carrying said substrate; and
a detection step of detecting a discharge condition of said liquid which is 25 discharged from said discharge nozzle, during a carrying operation of said substrate.

11. A device manufacturing method according to claim 10, comprising the steps of:
 - emitting detection light towards a receiver; and
 - determining whether said liquid is being discharged from said discharge nozzle,
- 5 based on changes in the intensity of said detection light received by said receiver due to said liquid passing through the optical path of said detection light.

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12. A device manufacturing method according to claim 11, wherein calibration of said receiver is performed at a predetermined timing.

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13. Electronic equipment comprising
 - a device manufactured by the device manufacturing apparatus of claim 1.
14. Electronic equipment comprising
 - a device manufactured by the device manufacturing method of claim 10.